

**ATK-AMMUNITION ACCESSORIES, INC (FORMERLY BLOUNT INC)**  
**(PWS 2350021)**  
**SOURCE WATER ASSESSMENT FINAL REPORT**

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**March 26, 2002**



**State of Idaho**  
**Department of Environmental Quality**

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## Executive Summary

Under the Safe Drinking Water Act Amendments of 1996, all states are required by the U.S. Environmental Protection Agency to assess every source of public drinking water for its relative sensitivity to contaminants regulated by the Act. This assessment is based on a land use inventory of the designated source water assessment area and sensitivity factors associated with the well and aquifer characteristics.

This report, *Source Water Assessment for ATK-Ammunition Accessories, Inc (formerly Blount Inc), Lewiston, Idaho*, describes the public drinking water system, the boundaries of the zones of water contribution, and the associated potential contaminant sources located within these boundaries. This assessment should be used as a planning tool, taken into account with local knowledge and concerns, to develop and implement appropriate protection measures for this source. **The results should not be used as an absolute measure of risk and they should not be used to undermine public confidence in the water system.**

The ATK-Ammunition Accessories, Inc (formerly Blount Inc) [ATK] drinking water system consists of one ground water well. The well has a moderate susceptibility rating to volatile organic, synthetic organic, and inorganic contamination, and a high susceptibility to microbial contamination. The high rating for microbial contamination is due to the detection of total coliform bacteria at the well, after chlorination, in September 1998. Though there is a parking lot within 50 feet of the source, ATK has contoured the parking area and paved it so that any contaminants will flow away from the source.

In general the source water is protected from surface contamination by hydrologic and system construction factors. Historical contamination of the upper aquifers has been limited to low concentrations of volatile organic contaminants and is currently under a consent order with the Idaho Department of Environmental Quality. The well has not recorded the presence of volatile organic, synthetic organic, or inorganic contamination during any water chemistry tests. The ATK system presently has a gaseous chlorine disinfection system in place. Though there have not been chemical problems with the system water, ATK should be aware that the potential for contamination from the aquifer still exists. Though Nez Perce County is rated as having high herbicide use, this land use was not factored into the analysis because the source delineation predominantly encompasses an urban area.

This assessment should be used as a basis for determining appropriate new protection measures or re-evaluating existing protection efforts. No matter what ranking a source receives, protection is always important. Whether the source is currently located in a “pristine” area or an area with numerous industrial and/or agricultural land uses that require surveillance, the way to ensure good water quality in the future is to act now to protect valuable water supply resources.

For the ATK system, drinking water protection activities should first focus on correcting any deficiencies outlined in the sanitary survey (an inspection conducted every five years with the purpose of determining the physical condition of a water system’s components and its capacity), including protection of the well from contamination sources within 50 feet of the wellhead. Also, disinfection practices should be maintained if

microbial contamination continues to be a problem. No chemicals should be stored or applied within the 50-foot radius of the wellhead. Additionally, there should be a focus on implementation of practices aimed at preventing the culvert, located within 20 feet of the source, from transporting any potential contamination or water. Since much of the designated protection areas are outside the direct jurisdiction of the ATK, collaboration and partnerships with state and local agencies, and industry groups should be established and are critical to the success of source water protection. In addition, the well should maintain sanitary survey standards regarding wellhead protection.

Due to the time involved with the movement of ground water, drinking water protection activities should be aimed at long-term management strategies even though these strategies may not yield results in the near term. A strong public education program should be a primary focus of any drinking water protection plan as the delineation encompasses much urban and residential land uses. There are multiple resources available to help communities implement protection programs, including the Drinking Water Academy of the U.S. Environmental Protection Agency. As there are transportation corridors through the delineation, the Department of Transportation should be involved in protection activities. Drinking water protection activities for agriculture should be coordinated with the Idaho State Department of Agriculture, the Soil Conservation Commission, the local Soil Conservation District, and the Natural Resources Conservation Service.

A community must incorporate a variety of strategies in order to develop a comprehensive drinking water protection plan, be they regulatory in nature (i.e. zoning, permitting) or non-regulatory in nature (i.e. good housekeeping, public education, specific best management practices). For assistance in developing protection strategies please contact the Lewiston Regional Office of the Idaho Department of Environmental Quality or the Idaho Rural Water Association.

# **SOURCE WATER ASSESSMENT FOR ATK-AMMUNITION ACCESSORIES, INC (FORMERLY BLOUNT INC), LEWISTON, IDAHO**

## **Section 1. Introduction - Basis for Assessment**

The following sections contain information necessary to understand how and why this assessment was conducted. **It is important to review this information to understand what the ranking of this source means.** A map showing the delineated source water assessment area and the inventory of significant potential sources of contamination identified within that area are attached. The list of significant potential contaminant source categories and their rankings used to develop the assessment is also included.

### **Background**

Under the Safe Drinking Water Act Amendments of 1996, all states are required by the U.S. Environmental Protection Agency (EPA) to assess every source of public drinking water for its relative susceptibility to contaminants regulated by the Safe Drinking Water Act. This assessment is based on a land use inventory of the delineated assessment area and sensitivity factors associated with the wells and aquifer characteristics.

### **Level of Accuracy and Purpose of the Assessment**

Since there are over 2,900 public water sources in Idaho, there is limited time and resources to accomplish the assessments. All assessments must be completed by May of 2003. An in-depth, site-specific investigation of each significant potential source of contamination is not possible. **Therefore, this assessment should be used as a planning tool, taken into account with local knowledge and concerns, to develop and implement appropriate protection measures for this source. The results should not be used as an absolute measure of risk and they should not be used to undermine public confidence in the water system.**

The ultimate goal of the assessment is to provide data to local communities to develop a protection strategy for their drinking water supply system. The Idaho Department of Environmental Quality (DEQ) recognizes that pollution prevention activities generally require less time and money to implement than treatment of a public water supply system once it has been contaminated. DEQ encourages communities to balance resource protection with economic growth and development. The decision as to the amount and types of information necessary to develop a drinking water protection program should be determined by the local community based on its own needs and limitations. Wellhead or drinking water protection is one facet of a comprehensive growth plan, and it can complement ongoing local planning efforts.

## **Section 2. Conducting the Assessment**

### **General Description of the Source Water Quality**

The public drinking water system for the ATK-Ammunition Accessories, Inc (formerly Blount Inc) [ATK] is comprised of one ground water well that serves approximately 400 people through one connection. The well is located in Nez Perce County, 600 feet to the east of the Snake River on the south western side of the City of Lewiston (Figure 1).

The most significant potential water problem currently affecting ATK is that of bacterial contamination. Total coliform bacteria were detected at the well, after chlorination, in September 1998. No inorganic contaminants (IOCs), volatile organic contaminants (VOCs), or synthetic organic contaminants (SOCs) have been detected in the well water.

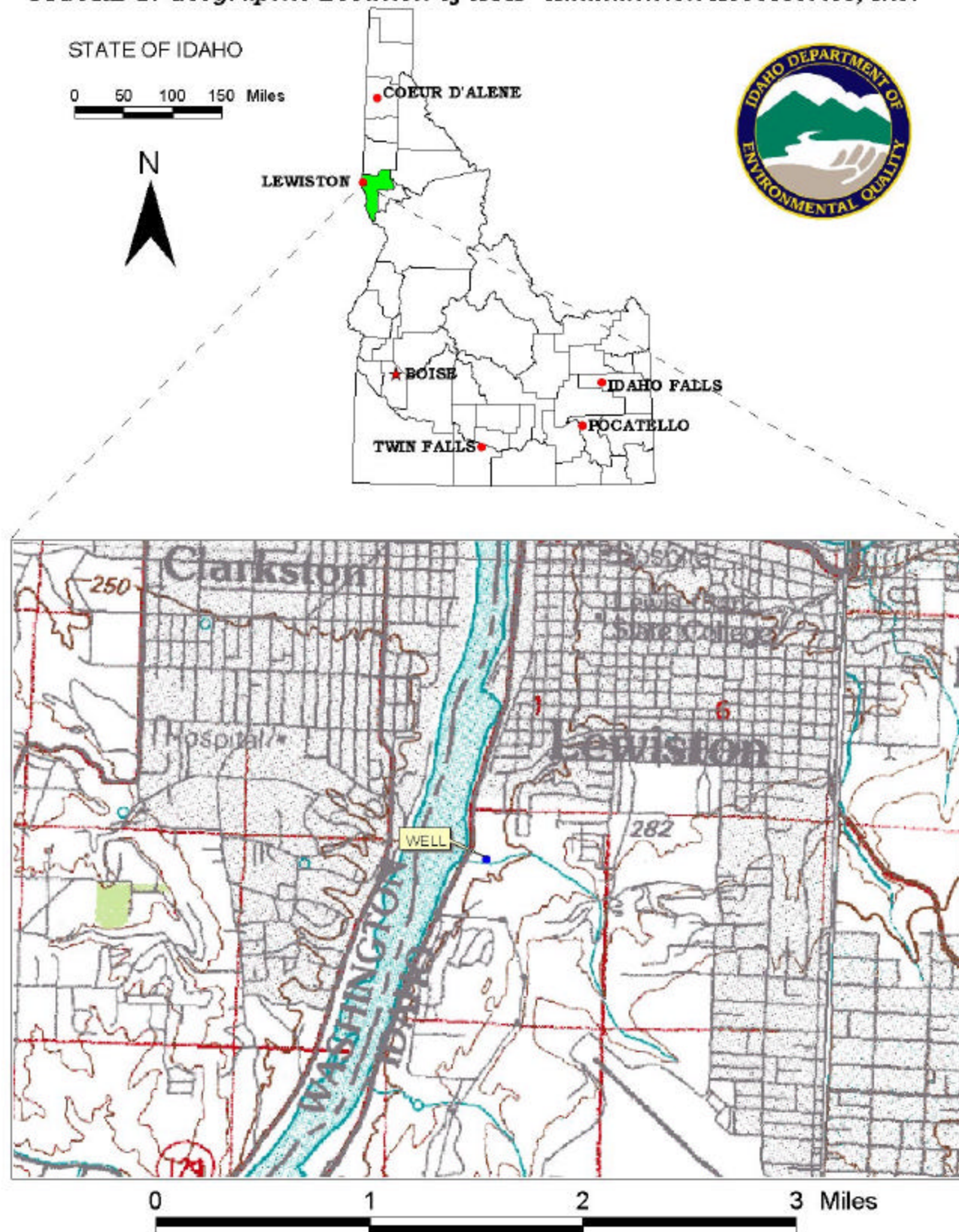
### **Defining the Zones of Contribution – Delineation**

The delineation process establishes the physical area around a well that will become the focal point of the assessment. The process includes mapping the boundaries of the zone of contribution into time-of-travel (TOT) zones (zones indicating the number of years necessary for a particle of water to reach a well) for water in the aquifer. DEQ contracted with the University of Idaho to perform the delineations using a refined computer model approved by the EPA in determining the 3-year (Zone 1B), 6-year (Zone 2), and 10-year (Zone 3) TOT for water associated with the Grande Ronde aquifer of the Clearwater Plateau in the vicinity of the ATK well. The computer model used site specific data, assimilated by the University of Idaho from a variety of sources including the ATK operator input, local area well logs, and hydrogeologic reports (detailed below).

The Grande Ronde Formation of the Columbia River Basalt Flows provides most of the ground water pumped in the vicinity of Lewiston because of its great thickness, extensive lateral continuity, and lack of fine-grained interbeds. Grande Ronde wells in the vicinity of Lewiston produce up to 2000 gallons per minute. The Grande Ronde is easily accessible to drilling at the confluence of the Clearwater and Snake Rivers and some of the tributary valleys such as Lapwai Creek where it has been exposed by erosion (Crosthwaite, 1989). The Grande Ronde aquifer at Lewiston is called the “Lewiston Aquifer” (EPA, 1988), as well as the “Lewiston Basin Deep Aquifer” (Wyatt-Jaykim, 1994).

Major faults, anticlinal folds, and a major topographic divide (the Blue Mountains) have been assumed by various parties (EPA, 1988; Wyatt-Jaykim, 1994) to form the regional impermeable boundaries of the Lewiston Basin Deep Aquifer. To the north, the aquifer is bounded by the Clearwater Escarpment, commonly referred to as the Lewiston Hill. Faults at the toe of Lewiston Hill include the Vista and Wilma faults. The northeastern boundary of the Lewiston Basin Deep Aquifer is taken to be the Cottonwood Creek Fault. The southeastern boundary is the Limekiln fault along the front of the Craig Mountains, which meets the Snake River at Limekiln rapids. From the Snake River westward, the Grande Ronde fault is considered to be the southern boundary of the Aquifer, until it meets the Blue Mountain topographic divide. This major topographic divide is assumed to be a regional groundwater divide.

**FIGURE 1. Geographic Location of ATK - Ammunition Accessories, Inc.**



Within the Lewiston Basin Deep Aquifer, water is generally assumed to flow from recharge in the highlands to discharge into the Snake and Clearwater Rivers. In addition, Cohen and Ralston (1980) mapped areas of possible river/aquifer interconnection, and proposed that (a) the aquifer discharges to the Snake below Lewiston, and (b) the aquifer is recharged from surface water from Lapwai Creek plus the Clearwater in the reach intersecting Lapwai Creek, and (c) that the aquifer is recharged from surface water in the vicinity of the confluence of the Snake River with Asotin Creek. These locations for surface water recharge to the aquifer were postulated where the basalt is dipping away from the creek.

Lack of complete understanding of the system caused two different modeling scenarios to be tested. One model assumes that the aquifer is in complete hydraulic connection with Clearwater and Snake Rivers. The other “end member” alternative only allows for hydraulic connection in the vicinity of Lewiston at locations (a), (b), and (c) described above and also the far-field upstream Snake River. The actual response of these pumping wells to the integrated hydrologic stresses of the locale are probably somewhere in the middle.

Precipitation is 13 inches/year in Lewiston-Clarkston, whereas higher elevation areas average close to 25 inches annually (Cohen and Ralston, 1980). A modeling effort documented by Wyatt-Jaykim (1994), concluded on the basis of available data that 1 to 2 inches/year is a conservative estimate for recharge to the basalt aquifers in the vicinity of Lewiston and Lewiston Orchards. This ignores irrigation losses that would contribute to recharge of the basalts overlying the Grande Ronde in the vicinity of the Lewiston Orchards.

The delineated source water assessment area for the ATK well can best be described as a corridor approximately 1.5 miles long and ¼ miles wide extending to the east of the ATK source crossing the southern section of the City of Lewiston (Figure 2). The actual data used by the University of Idaho in determining the source water assessment delineation areas are available from DEQ upon request.

## **Identifying Potential Sources of Contamination**

A potential source of contamination is defined as any facility or activity that stores, uses, or produces, as a product or by-product, the contaminants regulated under the Safe Drinking Water Act and has a sufficient likelihood of releasing such contaminants at levels that could pose a concern relative to drinking water sources. The goal of the inventory process is to locate and describe those facilities, land uses, and environmental conditions that are potential sources of groundwater contamination. The locations of potential sources of contamination within the delineation areas were obtained by field surveys conducted by DEQ and from available databases.

Land use within the immediate area of the ATK wellhead consists of an ammunition manufacturing plant, while the surrounding area is predominantly urban and residential.

It is important to understand that a release may never occur from a potential source of contamination provided they are using best management practices. Many potential sources of contamination are regulated at the federal level, state level, or both to reduce the risk of release. Therefore, when a business, facility, or property is identified as a potential contaminant source, this should not be interpreted to mean that this business, facility, or property is in violation of any local, state, or federal environmental law or regulation. What it does mean is that the potential for contamination exists due to the nature of the business,

industry, or operation. There are a number of methods that water systems can use to work cooperatively with potential sources of contamination, including educational visits and inspections of stored materials. Many owners of such facilities may not even be aware that they are located near a public water supply well.

### Contaminant Source Inventory Process

A two-phased contaminant inventory of the study area was conducted in June 2001. The first phase involved identifying and documenting potential contaminant sources within the ATK Source Water Assessment Area (Figure 2) through the use of computer databases and Geographic Information System maps developed by DEQ. The second, or enhanced, phase of the contaminant inventory involved contacting the operator, Mark von Lindern, to identify and add any additional potential sources in the area.

The delineated source water area encompasses a tube-shaped corridor of land between the well site and a shopping center to the east. The delineation (Table 1, Figure 2) has thirteen potential contaminant sources. Those in the 3-year TOT include an underground storage tank (UST), a toxic release inventory site on the ATK property, a VOC plume on the ATK property, and various businesses. Other TOT sections contain a brewery, a crematory, an import/export facility, and an automobile dealership. In addition, the delineation crosses the Snake River to the west of the source.

**Table 1. ATK-Ammunition Accessories, Inc (formerly Blount Inc) Well, Potential Contaminant Inventory**

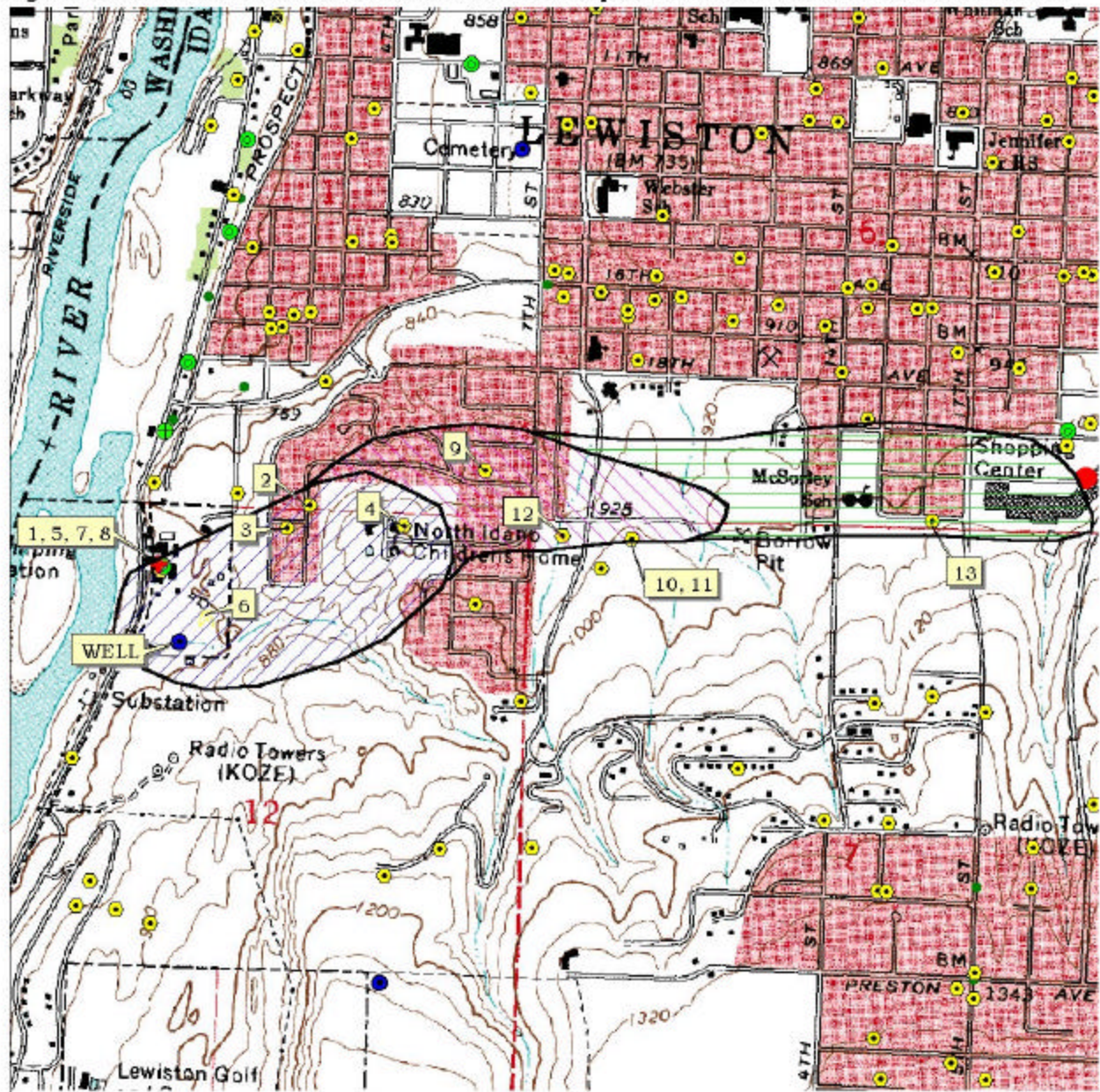
Site #	Source Description <sup>1</sup>	TOT ZONE <sup>2</sup>	Source of Information	Potential Contaminants <sup>3</sup>
1, 5, 6, 7, 8	UST Site; Ammunition Manufacturers; Toxic Release Inventory site; RCRA site; Corrective Action cleanup of PCE/TCE spill	0-3	Database Search; Enhanced Inventory	IOC, VOC, SOC
	Snake River	0-3	GIS Map	IOC, VOC, SOC, Microbes
2	Plumbing Contractor	0-3	Database Search	IOC, VOC, SOC
3	Bathtub & Shower Resurfacing	0-3	Database Search	IOC, VOC, SOC
4	Residential Treatment Facility	0-3	Database Search	IOC, Microbes
9	Brewers	3-6	Database Search	IOC, VOC
10, 11	Crematories; Funeral Directors	3-6	Database Search	IOC, VOC, SOC
12	Import/Export	3-6	Database Search	IOC, VOC, SOC
13	Automobile Dealers-New Cars	6-10	Database Search	VOC, SOC

<sup>1</sup> UST = underground storage tank, PCE = tetrachloroethylene, TCE = trichloroethylene

<sup>2</sup> TOT = time-of-travel (in years) for a potential contaminant to reach the wellhead

<sup>3</sup> IOC = inorganic chemical, VOC = volatile organic chemical, SOC = synthetic organic chemical

Figure 2. ATK - Ammunition Accessories Inc. Delineation Map and Potential Contaminant Source Locations



0 0.2 0.4 0.6 0.8 1 Miles



**PWS# 2350021**  
**WELL**

### **Section 3. Susceptibility Analyses**

The water system's susceptibility to contamination was ranked as high, moderate, or low risk according to the following considerations: hydrologic characteristics, physical integrity of the well, land use characteristics, and potentially significant contaminant sources. The susceptibility rankings are specific to a particular potential contaminant or category of contaminants. Therefore, a high susceptibility rating relative to one potential contaminant does not mean that the water system is at the same risk for all other potential contaminants. The relative ranking that is derived for each well is a qualitative, screening-level step that, in many cases, uses generalized assumptions and best professional judgement. Attachment A contains the susceptibility analysis worksheet for the system. The following summaries describe the rationale for the susceptibility ranking.

#### **Hydrologic Sensitivity**

The hydrologic sensitivity of a well is dependent upon four factors: the surface soil composition, the material in the vadose zone (between the land surface and the water table), the depth to first ground water, and the presence of a 50-foot thick fine-grained zone above the producing zone of the well. Slowly draining soils such as silt and clay typically are more protective of ground water than coarse-grained soils such as sand and gravel. Similarly, fine-grained sediments in the subsurface and a water depth of more than 300 feet protect the ground water from contamination.

Hydrologic sensitivity is moderate for the well (Table 2). This is a result of the soils being in the poorly to moderately-drained class, the fact that the water table is less than 300 feet from the surface, and the lack of sufficient sedimentary interbeds between basalt layers that could retard the downward movement of contaminants.

#### **Well Construction**

Well construction directly affects the ability of the well to protect the aquifer from contaminants. System construction scores are reduced when information shows that potential contaminants will have a more difficult time reaching the intake of the well. Lower scores imply a system is less vulnerable to contamination. For example, if the well casing and annular seal both extend into a low permeability unit, then the possibility of contamination is reduced and the system construction score goes down. If the highest production interval is more than 100 feet below the water table, then the system is considered to have better buffering capacity. If the wellhead and surface seal are maintained to standards, as outlined in Sanitary Surveys, then contamination down the well bore is less likely. If the well is protected from surface flooding and is outside the 100-year floodplain, then contamination from surface events is reduced.

The well has a moderate system construction score. The well log, the operator, and the 2000 Sanitary Survey provided the following information. The well, drilled in 1984, is 390 feet deep. The casing used is of varying thicknesses and diameters. 0.375-inch thick, 20-inch diameter casing extends to 21 feet below ground surface (bgs). 0.3125-inch thick, 16-inch casing extends to 78 feet bgs. 0.312-inch thick, 12-inch casing extends to 290 feet bgs, and 0.280-inch thick, 10-inch casing is installed from 285 feet bgs to 390 feet bgs. The wellhead and surface seal are in compliance with regulations, and the well is protected from surface flooding. The producing interval begins at 190 feet bgs, which is greater than 100 feet below the static water table.

A determination was made as to whether current public water system (PWS) construction standards are being met. Though the well may have been in compliance with standards when it were completed, current PWS well construction standards are more stringent. The Idaho Department of Water Resources *Well Construction Standards Rules* (1993) require all PWSs to follow DEQ standards as well. IDAPA 58.01.08.550 requires that PWSs follow the *Recommended Standards for Water Works* (1997) during construction. These standards include provisions for well screens, pumping tests, and casing thicknesses to name a few. Table 1 of the *Recommended Standards for Water Works* (1997) lists the required steel casing thickness for various diameter wells. 10-inch diameter wells require a casing thickness of at least 0.365-inches and 12-inch diameter and larger casing requires 0.375-inch thick casing. The well was assessed an additional point in the system construction rating.

### Potential Contaminant Source and Land Use

The well rates moderate for IOC's (i.e. nitrates, arsenic), VOC's (i.e. petroleum products, chlorinated solvents), and SOC's (i.e. pesticides), and low for microbial contaminants (i.e. bacteria). Local commercial and manufacturing land use in the delineated source area accounts for the largest contribution of points to the potential contaminant inventory rating.

Though the well is in a county with high levels of herbicide use, this contribution of SOC's was not added into the rating because the delineation mainly encompasses urban areas. Total coliform bacteria were detected at the wellhead, after chlorination, in September 1998. No IOC's, VOC's, or SOC's have been detected in the well water.

### Final Susceptibility Ranking

An IOC detection above a drinking water standard MCL, any detection of a VOC or SOC, or a detection of total coliform bacteria or fecal coliform bacteria at the wellhead will automatically give a high susceptibility rating to a well despite the land use of the area because a pathway for contamination already exists. Additionally, if there are contaminant sources located within 50 feet of the source then the wellhead will automatically get a high susceptibility rating. In this case, the well automatically scores high for microbial contamination due to the detection at the wellhead in September 1998. Hydrologic sensitivity and system construction scores are heavily weighted in the final scores. Having multiple potential contaminant sources in the 0 to 3-year time of travel zone (Zone 1B) and agricultural land contribute greatly to the overall ranking. In terms of total susceptibility, the well rates moderate for all categories, except as noted above.

**Table 2. Summary of ATK Susceptibility Evaluation**

Well	Susceptibility Scores <sup>1</sup>									
	Hydrologic Sensitivity	Contaminant Inventory				System Construction	Final Susceptibility Ranking			
		IOC	VOC	SOC	Microbials		IOC	VOC	SOC	Microbials
Well	M	M	M	M	L	M	M	M	H* <sup>2</sup>	

<sup>1</sup>H = High Susceptibility, M = Moderate Susceptibility, L = Low Susceptibility,

IOC = inorganic chemical, VOC = volatile organic chemical, SOC = synthetic organic chemical

<sup>2</sup> H\* = Well scores automatically high due to detection of total coliform bacteria at the wellhead.

## **Susceptibility Summary**

Overall, the well ranks automatically high for microbial contaminants and moderate for all other categories. Contouring and paving the parking lot to transfer contaminants away from the well source reduced an automatic high rating for VOCs and SOCs to moderate. The lack of multiple potential contaminant sources and the soil characteristics contribute to the moderate scores.

The most significant potential water problem currently affecting ATK is that of bacterial contamination. Total coliform bacteria were detected at the well, after chlorination, in September 1998. No IOCs, VOCs, or SOCs have been detected in the well water.

## **Section 4. Options for Drinking Water Protection**

The susceptibility assessment should be used as a basis for determining appropriate new protection measures or re-evaluating existing protection efforts. No matter what the susceptibility ranking a source receives, protection is always important. Whether the source is currently located in a “pristine” area or an area with numerous industrial and/or agricultural land uses that require surveillance, the way to ensure good water quality in the future is to act now to protect valuable water supply resources.

An effective drinking water protection program is tailored to the particular local drinking water protection area. A community with a fully developed drinking water protection program will incorporate many strategies. For the ATK system source water protection activities should first focus on correcting any deficiencies outlined in the sanitary survey, including protection of the well from contamination sources within 50 feet of the wellhead. Also, disinfection practices should be maintained if microbial contamination continues to be a problem. No chemicals should be stored or applied within the 50-foot radius of the wellhead. Since much of the designated protection areas are outside the direct jurisdiction of the ATK, collaboration and partnerships with state and local agencies, and industry groups should be established and are critical to the success of source water protection. In addition, the well should maintain sanitary survey standards regarding wellhead protection.

Due to the time involved with the movement of ground water, drinking water protection activities should be aimed at long-term management strategies even though these strategies may not yield results in the near term. A strong public education program should be a primary focus of any drinking water protection plan as the delineation encompasses much urban and residential land uses. There are multiple resources available to help communities implement protection programs, including the Drinking Water Academy of the EPA. As there are transportation corridors through the delineation, the Idaho Department of Transportation should be involved in protection activities. Drinking water protection activities for agriculture should be coordinated with the Idaho State Department of Agriculture, the Soil Conservation Commission, the local Soil Conservation District, and the Natural Resources Conservation Service.

A community must incorporate a variety of strategies in order to develop a comprehensive drinking water protection plan, be they regulatory in nature (i.e. zoning, permitting) or non-regulatory in nature (i.e. good housekeeping, public education, specific best management practices). For assistance in developing protection strategies please contact the Lewiston Regional Office of the DEQ or the Idaho Rural Water Association.

## **Assistance**

Public water supplies and others may call the following DEQ offices with questions about this assessment and to request assistance with developing and implementing a local protection plan. In addition, draft protection plans may be submitted to the DEQ office for preliminary review and comments.

Lewiston Regional DEQ Office (208) 799-4370

State DEQ Office (208) 373-0502

Website: <http://www2.state.id.us/deq>

Water suppliers serving fewer than 10,000 persons may contact John Bokor, Idaho Rural Water Association, at 1-800-962-3257 for assistance with drinking water protection (formerly wellhead protection) strategies.

## POTENTIAL CONTAMINANT INVENTORY

### LIST OF ACRONYMS AND DEFINITIONS

**AST (Aboveground Storage Tanks)** – Sites with aboveground storage tanks.

**Business Mailing List** – This list contains potential contaminant sites identified through a yellow pages database search of standard industry codes (SIC).

**CERCLIS** – This includes sites considered for listing under the **Comprehensive Environmental Response Compensation and Liability Act (CERCLA)**. CERCLA, more commonly known as ASuperfund® is designed to clean up hazardous waste sites that are on the national priority list (NPL).

**Cyanide Site** – DEQ permitted and known historical sites/facilities using cyanide.

**Dairy** – Sites included in the primary contaminant source inventory represent those facilities regulated by Idaho State Department of Agriculture (ISDA) and may range from a few head to several thousand head of milking cows.

**Deep Injection Well** – Injection wells regulated under the Idaho Department of Water Resources generally for the disposal of stormwater runoff or agricultural field drainage.

**Enhanced Inventory** – Enhanced inventory locations are potential contaminant source sites added by the water system. These can include new sites not captured during the primary contaminant inventory, or corrected locations for sites not properly located during the primary contaminant inventory. Enhanced inventory sites can also include miscellaneous sites added by the Idaho Department of Environmental Quality (DEQ) during the primary contaminant inventory.

**Floodplain** – This is a coverage of the 100year floodplains.

**Group 1 Sites** – These are sites that show elevated levels of contaminants and are not within the priority one areas.

**Inorganic Priority Area** – Priority one areas where greater than 25% of the wells/springs show constituents higher than primary standards or other health standards.

**Landfill** – Areas of open and closed municipal and non-municipal landfills.

**LUST (Leaking Underground Storage Tank)** – Potential contaminant source sites associated with leaking underground storage tanks as regulated under RCRA.

**Mines and Quarries** – Mines and quarries permitted through the Idaho Department of Lands.)

**Nitrate Priority Area** – Area where greater than 25% of wells/springs show nitrate values above 5 mg/L.

**NPDES (National Pollutant Discharge Elimination System)**

– Sites with NPDES permits. The Clean Water Act requires that any discharge of a pollutant to waters of the United States from a point source must be authorized by an NPDES permit.

**Organic Priority Areas** – These are any areas where greater than 25 % of wells/springs show levels greater than 1% of the primary standard or other health standards.

**Recharge Point** – This includes active, proposed, and possible recharge sites on the Snake River Plain.

**RICRIS** – Site regulated under **Resource Conservation Recovery Act (RCRA)**. RCRA is commonly associated with the cradle to grave management approach for generation, storage, and disposal of hazardous wastes.

**SARA Tier II (Superfund Amendments and Reauthorization Act Tier II Facilities)** – These sites store certain types and amounts of hazardous materials and must be identified under the Community Right to Know Act.

**Toxic Release Inventory (TRI)** – The toxic release inventory list was developed as part of the Emergency Planning and Community Right to Know (Community Right to Know) Act passed in 1986. The Community Right to Know Act requires the reporting of any release of a chemical found on the TRI list.

**UST (Underground Storage Tank)** – Potential contaminant source sites associated with underground storage tanks regulated as regulated under RCRA.

**Wastewater Land Applications Sites** – These are areas where the land application of municipal or industrial wastewater is permitted by DEQ.

**Wellheads** – These are drinking water well locations regulated under the Safe Drinking Water Act. They are not treated as potential contaminant sources.

**NOTE:** Many of the potential contaminant sources were located using a geocoding program where mailing addresses are used to locate a facility. Field verification of potential contaminant sources is an important element of an enhanced inventory.

Where possible, a list of potential contaminant sites unable to be located with geocoding will be provided to water systems to determine if the potential contaminant sources are located within the source water assessment area.

## References Cited

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## Attachment A

# ATK-Ammunition Accessories, Inc (formerly Blount Inc) Susceptibility Analysis Worksheet

The final scores for the susceptibility analysis were determined using the following formulas:

- 1) VOC/SOC/IOC Final Score = Hydrologic Sensitivity + System Construction + (Potential Contaminant/Land Use x 0.2)
- 2) Microbial Final Score = Hydrologic Sensitivity + System Construction + (Potential Contaminant/Land Use x 0.375)

Final Susceptibility Scoring:

- 0 - 5 Low Susceptibility
- 6 - 12 Moderate Susceptibility
- $\geq 13$  High Susceptibility

## Ground Water Susceptibility Report

Public Water System Name :

BLOUNT INC

Well# : WELL

Public Water System Number 2350021

03/26/2002 8:34:43 AM

## 1. System Construction

SCORE

Drill Date	05/15/1983	
Driller Log Available	YES	
Sanitary Survey (if yes, indicate date of last survey)	YES	2000
Well meets IDWR construction standards	NO	1
Wellhead and surface seal maintained	YES	0
Casing and annular seal extend to low permeability unit	NO	2
Highest production 100 feet below static water level	YES	0
Well located outside the 100 year flood plain	YES	0

Total System Construction Score 3

## 2. Hydrologic Sensitivity

Soils are poorly to moderately drained	YES	0
Vadose zone composed of gravel, fractured rock or unknown	YES	1
Depth to first water > 300 feet	NO	1
Aquitard present with > 50 feet cumulative thickness	NO	2

Total Hydrologic Score 4

## 3. Potential Contaminant / Land Use - ZONE 1A

IOC Score	VOC Score	SOC Score	Microbial Score
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Land Use Zone 1A	URBAN/COMMERCIAL	2	2	2	2
Farm chemical use high	NO	0	0	0	
IOC, VOC, SOC, or Microbial sources in Zone 1A	YES	NO	NO	NO	YES
Total Potential Contaminant Source/Land Use Score - Zone 1A		2	2	2	2

## Potential Contaminant / Land Use - ZONE 1B

Contaminant sources present (Number of Sources)	YES	5	4	4	2
(Score = # Sources X 2 ) 8 Points Maximum		8	8	8	4
Sources of Class II or III leacheable contaminants or	YES	1	2	1	
4 Points Maximum		1	2	1	
Zone 1B contains or intercepts a Group 1 Area	NO	0	0	0	0
Land use Zone 1B	Less Than 25% Agricultural Land	0	0	0	0

Total Potential Contaminant Source / Land Use Score - Zone 1B 9 10 9 4

## Potential Contaminant / Land Use - ZONE II

Contaminant Sources Present	YES	2	2	2	
Sources of Class II or III leacheable contaminants or	YES	1	0	0	
Land Use Zone II	Less than 25% Agricultural Land	0	0	0	

Potential Contaminant Source / Land Use Score - Zone II 3 2 2 0

## Potential Contaminant / Land Use - ZONE III

Contaminant Source Present	YES	0	1	1	
Sources of Class II or III leacheable contaminants or	NO	0	0	0	
Is there irrigated agricultural lands that occupy > 50% of	NO	0	0	0	

Total Potential Contaminant Source / Land Use Score - Zone III	0	1	1	0
Cumulative Potential Contaminant / Land Use Score	14	15	14	6
4. Final Susceptibility Source Score	10	10	10	9
5. Final Well Ranking	Moderate	Moderate	Moderate	High